

Calculator Get Down

I first and last saw this game in a “calculator fun book” about 30 years ago, but long ago lost track of the book and author. (Yes, there were calculators then. They could add, subtract, multiply and divide, and got hot if you left them on too long.)

Math content: mental math, operations, divisibility rules.

Materials: 1 calculator

Players: 1

Gameplay: Enter a random 6 digit number with no repeats. Using only +, −, *, and / perform operations on this number to get to zero – using only 2 digit operands, and 6 or less steps! Ask students to keep a record.

Example: 342987. (1) −37. (2)/50. (3) −59. (4) /40. (5) −85. (6) −85.

Variations: Don’t even get me started. Good order of operations practice to write down a single equation of what they did.

Flip – a free game by James Ernest

Players: 2

Playing Time: 5 minutes

Equipment: Ten 6-sided dice

To Begin: Each player rolls five 6-sided dice. The player who rolls the lowest total goes first.

On Each Turn: You may do one of two things. You may either flip over one of your own dice, or you may instruct your opponent to play one of his dice into the middle of the table.

Playing: When you make your opponent put a die in the middle, you choose the die. Your opponent puts it into the middle. He may then withdraw any combination of dice from the middle which totals less than the value of the die he put in. So, for example, if he plays a 5 into the middle, he could take out up to 4 points worth of dice in any combination.

Winning: To win the round, you must be the last player with any dice left. To keep score over several rounds, record the sum total of the dice you keep. In that case, play to 50 points.

Stalemate: To avoid stalemate, it is illegal to flip the same die twice without first making your opponent play.

Note: This game requires some modeling, as the reverse nature of the decisions makes it difficult for students to get the hang of it.

Number Strings

Players take turns breaking down a number by multiplication. The first player starts with a whole number. The next player makes a string of two numbers that multiply to give the first. The next player then can break down one of the two numbers, making a three number string. The last player who can break it down is the loser of the game. Numbers chosen must be able to be broken down more than once.

Players may not reuse starting numbers. 1 may not be used in the breakdown.

Examples:

A) 46

2x23

Can only be broken down once, player who started loses.

B) 36

4x9

2x2x9

2x2x3x3 – loses.